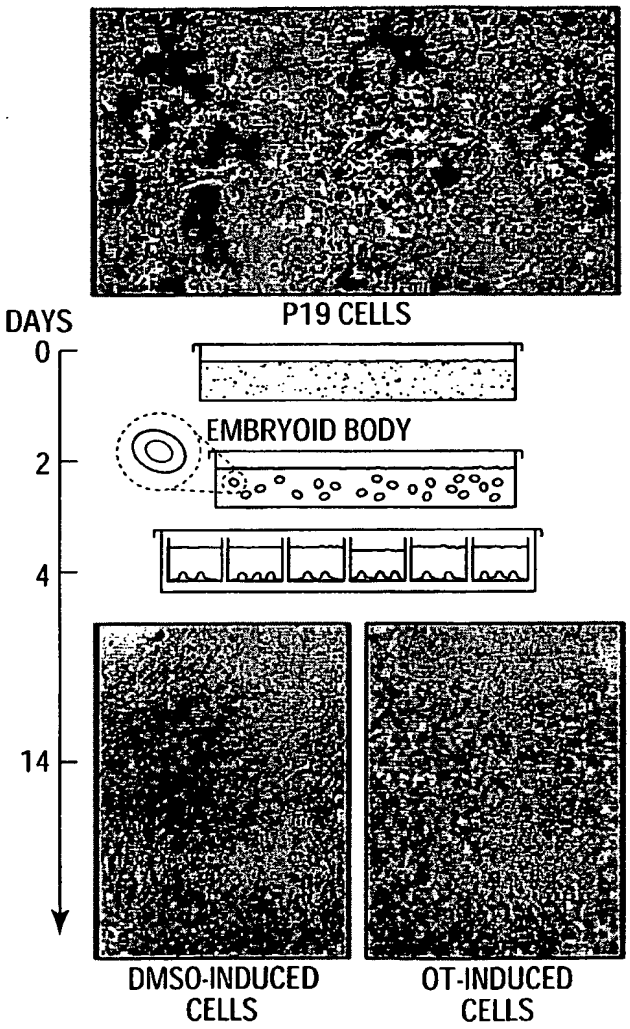


FIG. 1

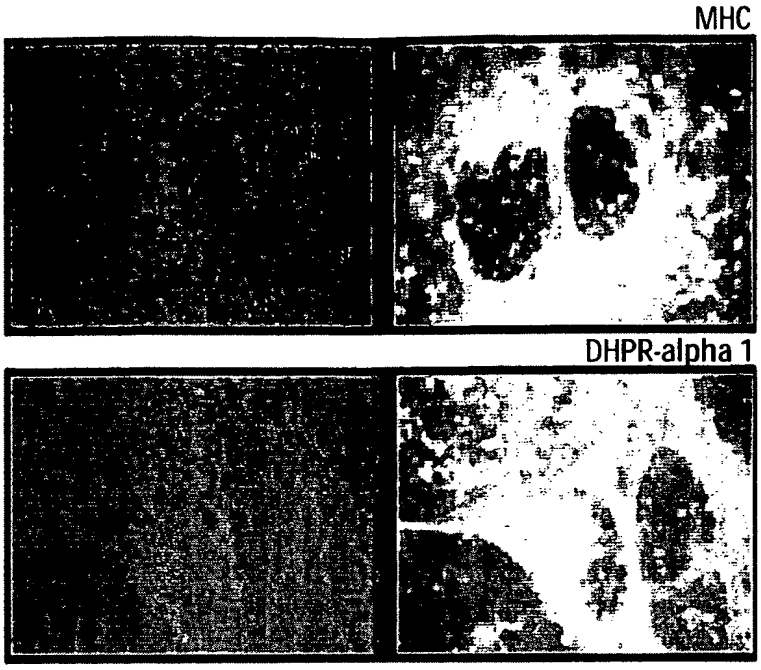

MHC
DHPR-alpha 1

FIG. 2A

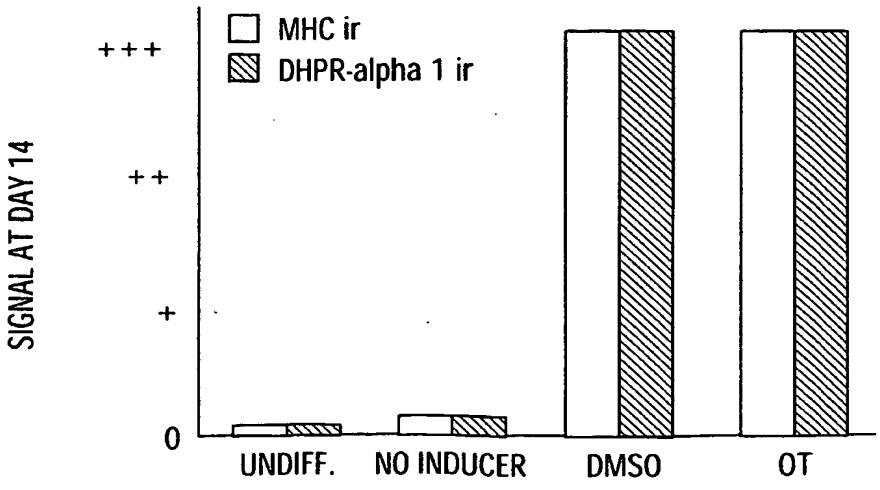
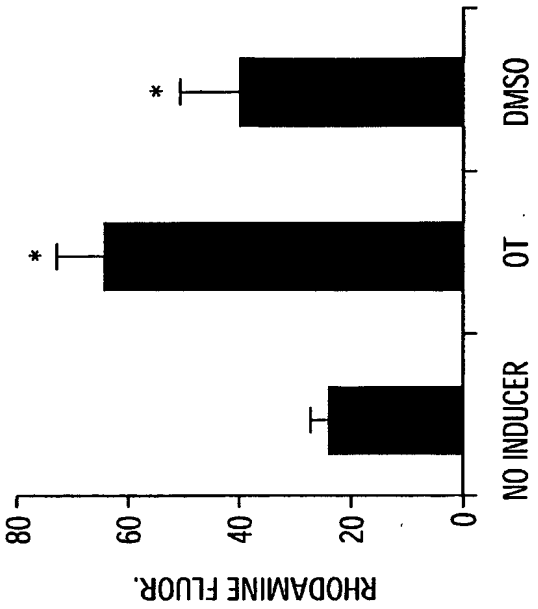

MHC ir
DHPR-alpha 1 ir
SIGNAL AT DAY 14
+++
++
+
0
UNDIFF.
NO INDUCER
DMSO
OT

FIG. 2B



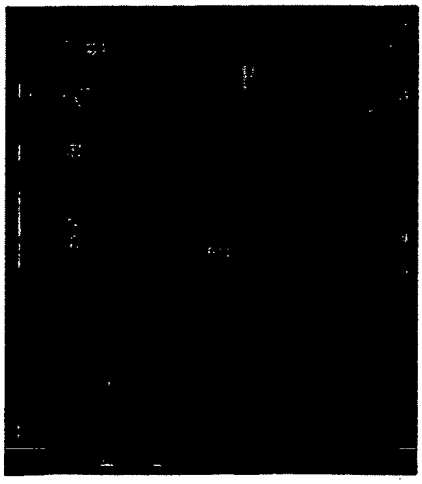


FIG. 3A

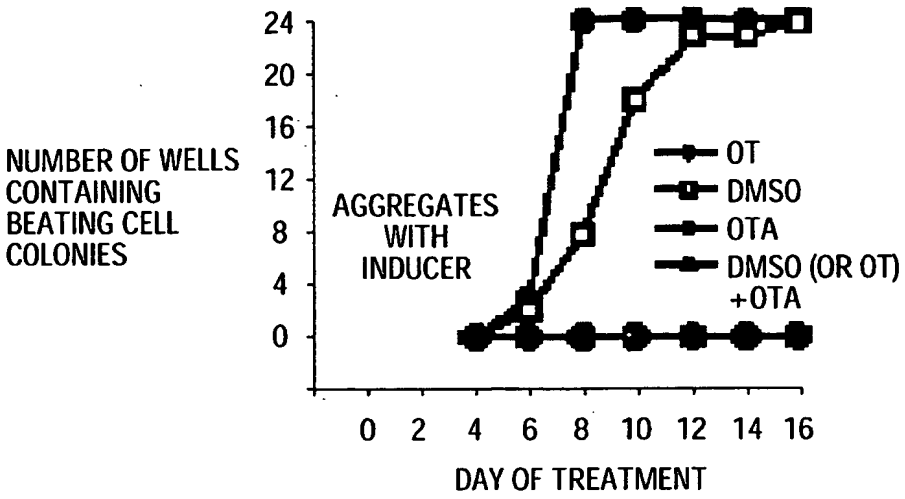
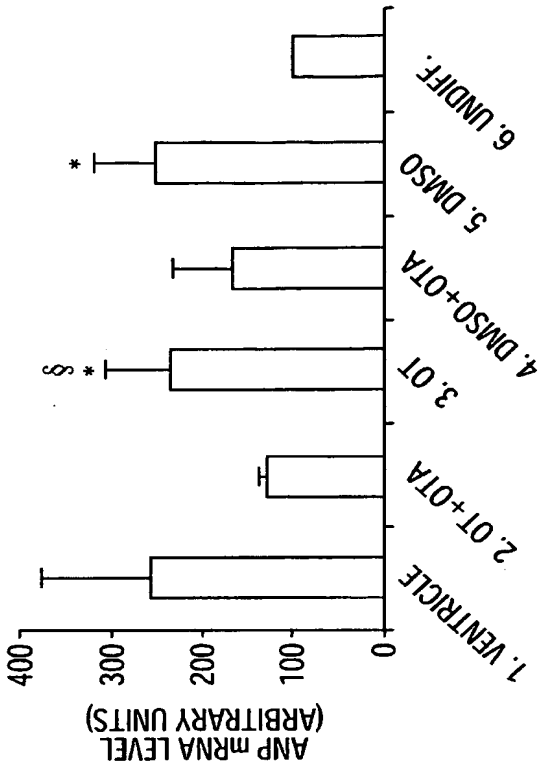

NUMBER OF WELLS CONTAINING BEATING CELL COLONIES
AGGREGATES WITH INDUCER
24
20
16
12
8
4
0
0 2 4 6 8 10 12 14 16
DAY OF TREATMENT
OT
DMSO
OTA
DMSO (OR OT) +OTA

FIG. 3B


ANP mRNA LEVEL
(ARBITRARY UNITS)
400
300
200
100
0
1. VENTRICLE
2. OT+OTA
3. OT
4. DMSO+OTA
5. DMSO
6. UNDIFF.
*
§
*

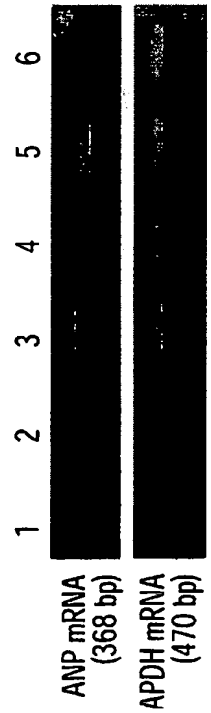

1
2
3
4
5
6
ANP mRNA (368 bp)
APDH mRNA (470 bp)

FIG. 3C

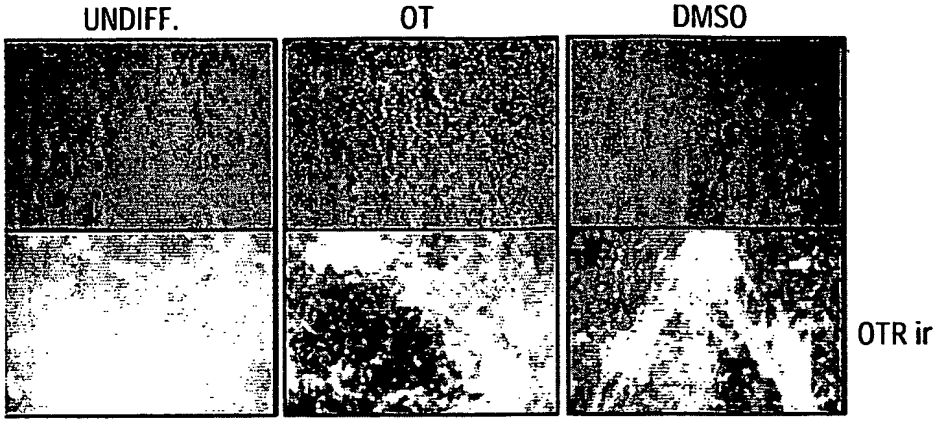


FIG. 4A

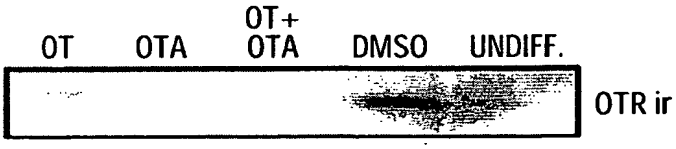


FIG. 4B

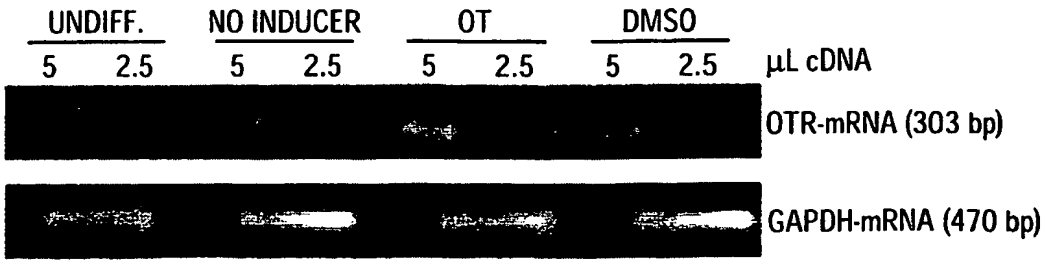


FIG. 4C

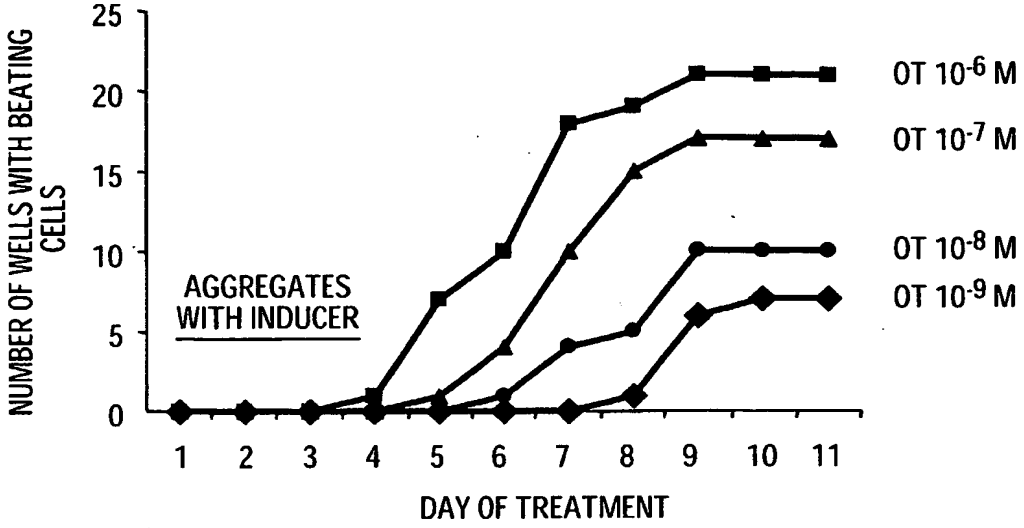

NUMBER OF WELLS WITH BEATING CELLS
25
20
15
10
5
0
AGGREGATES WITH INDUCER
OT 10^{-6} M
OT 10^{-7} M
OT 10^{-8} M
OT 10^{-9} M
1 2 3 4 5 6 7 8 9 10 11
DAY OF TREATMENT

FIG. 5A

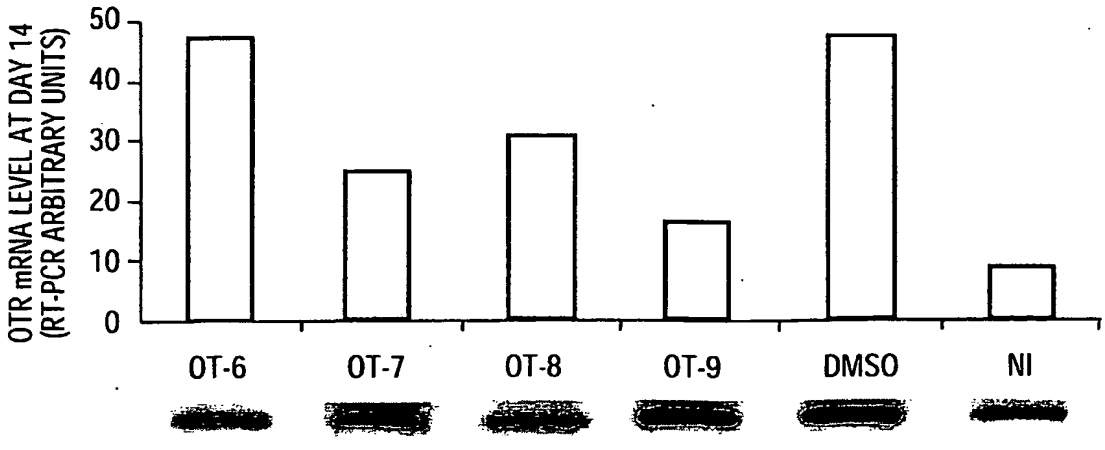

OTR mRNA LEVEL AT DAY 14 (RT-PCR ARBITRARY UNITS)
50
40
30
20
10
0
OT-6
OT-7
OT-8
OT-9
DMSO
NI

FIG. 5B

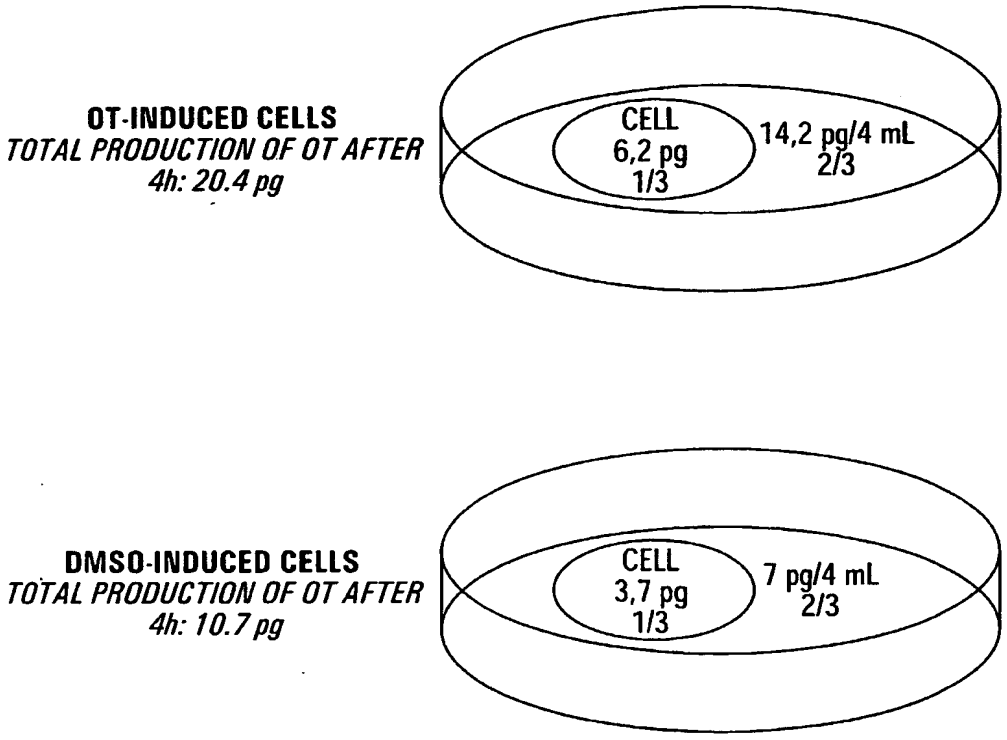

OT-INDUCED CELLS
TOTAL PRODUCTION OF OT AFTER
4h: 20.4 pg
CELL
6,2 pg
1/3
14,2 pg/4 mL
2/3
DMSO-INDUCED CELLS
TOTAL PRODUCTION OF OT AFTER
4h: 10.7 pg
CELL
3,7 pg
1/3
7 pg/4 mL
2/3

FIG. 6

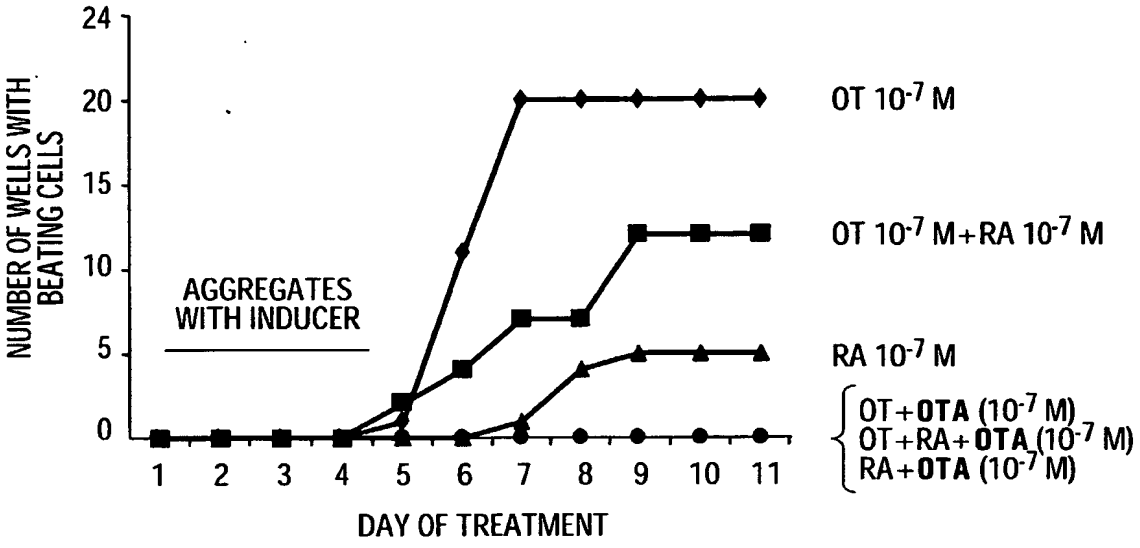

NUMBER OF WELLS WITH BEATING CELLS
24
20
15
10
5
0
AGGREGATES WITH INDUCER
1 2 3 4 5 6 7 8 9 10 11
DAY OF TREATMENT
OT 10-7 M
OT 10-7 M+RA 10-7 M
RA 10-7 M
OT+OTA (10-7 M)
OT+RA+OTA (10-7 M)
RA+OTA (10-7 M)

FIG. 7A

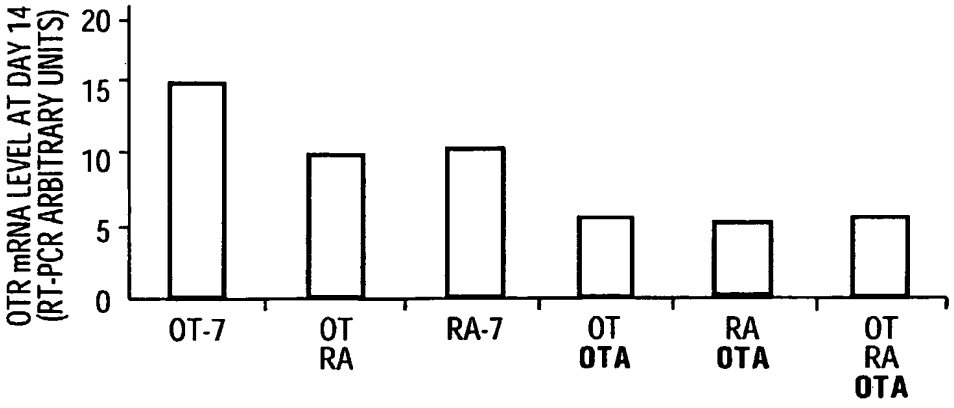
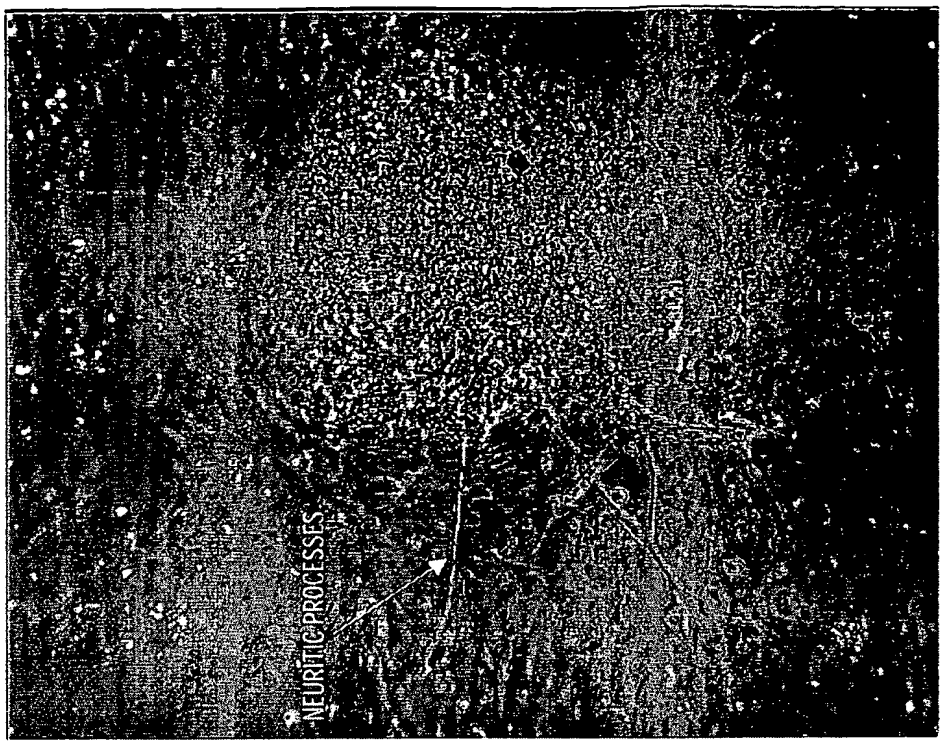
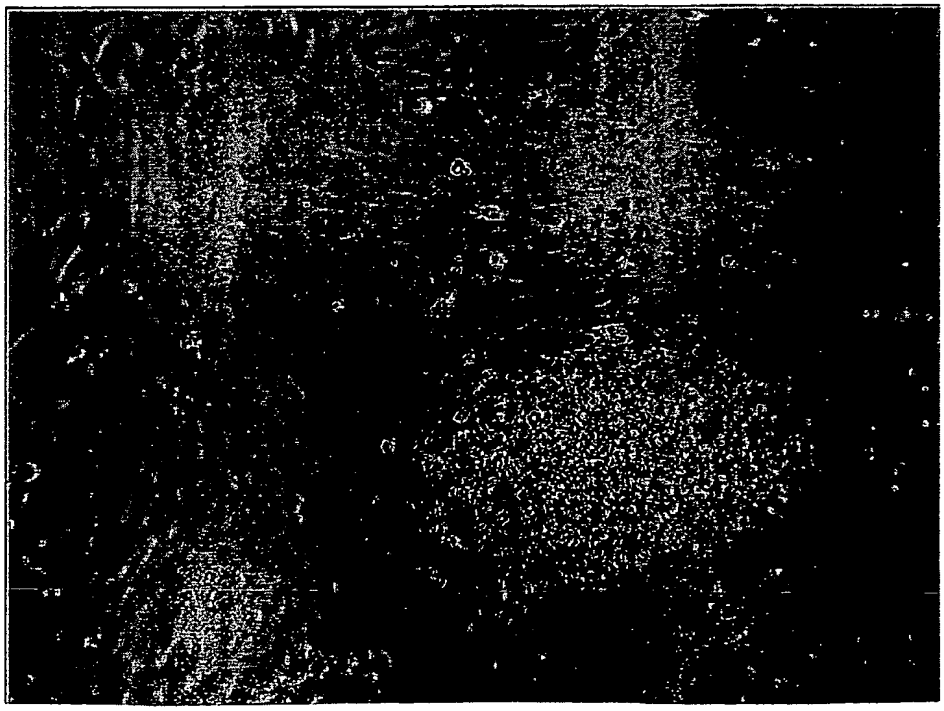

OTR mRNA LEVEL AT DAY 14 (RT-PCR ARBITRARY UNITS)
20
15
10
5
0
OT-7
OT RA
RA-7
OT OTA
RA OTA
OT RA OTA

FIG. 7B



RA 10^{-8} M+OTA 10^{-7} M

FIG. 8B



RA 10^{-8} M

FIG. 8A

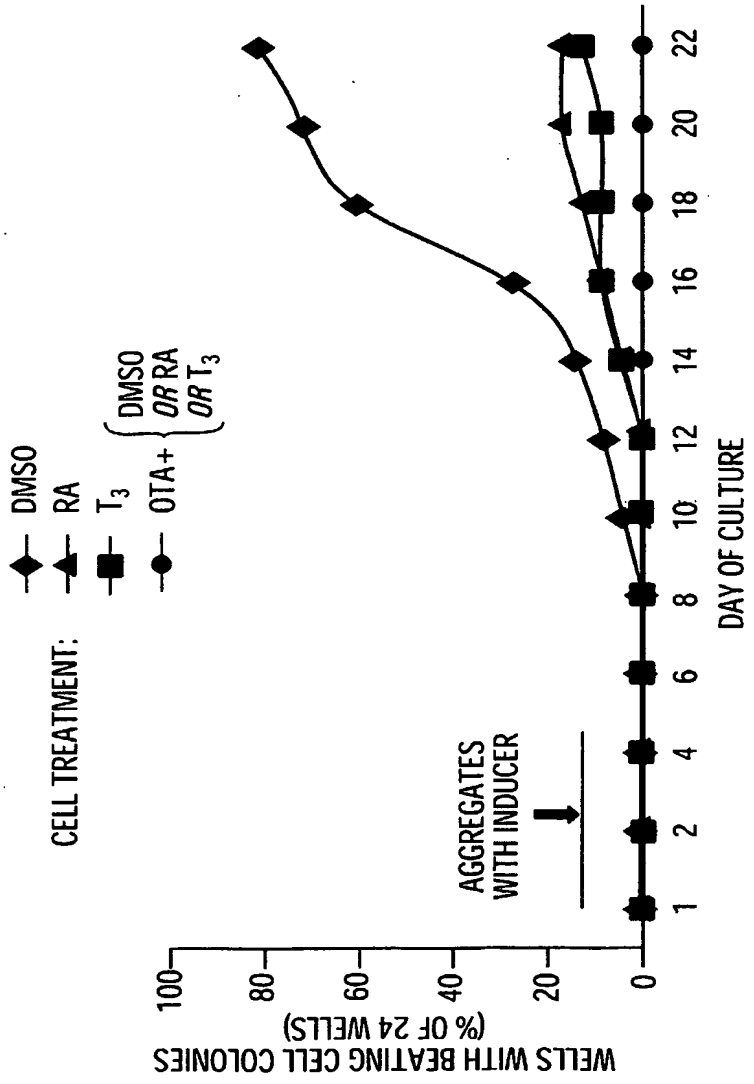

WELLS WITH BEATING CELL COLONIES
(% OF 24 WELLS)
100
80
60
40
20
0
1
2
4
6
8
10
12
14
16
18
20
22
DAY OF CULTURE
AGGREGATES WITH INDUCER
CELL TREATMENT:
DMSO
RA
T_3
OTA+
DMSO OR RA OR T_3

FIG. 9

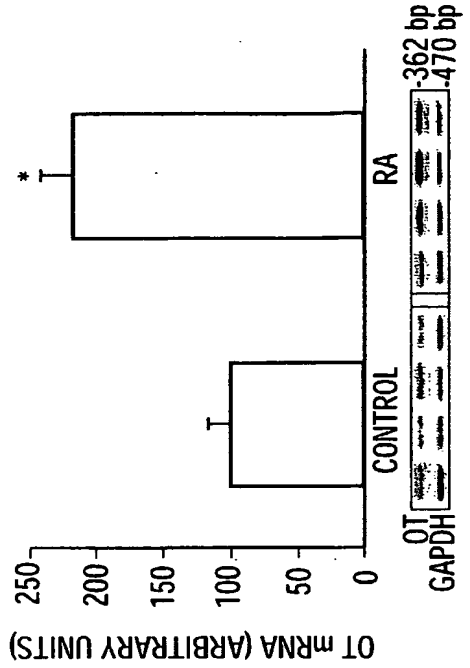


FIG. 10B

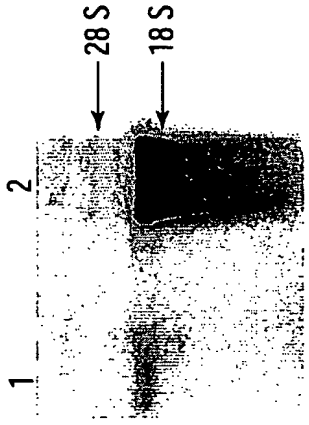


FIG. 10D

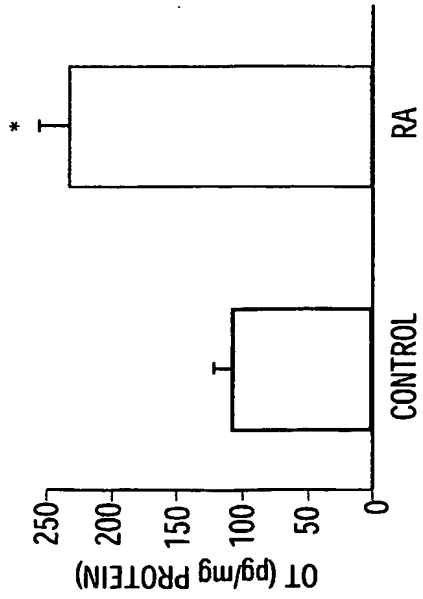


FIG. 10A

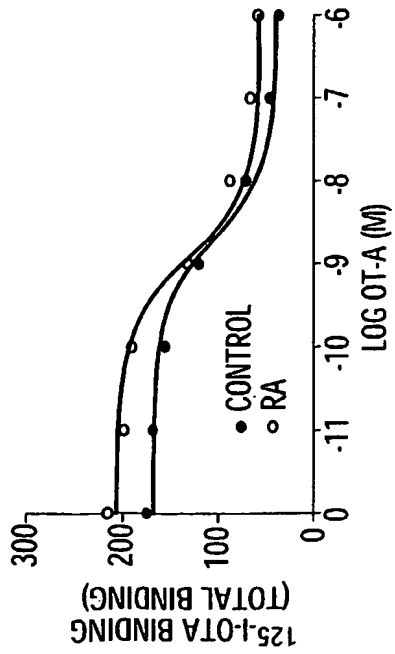


FIG. 10C

Human oxytocin DNA and polypeptide sequences (Genbank accession NM_000915)

Human OT DNA (SEQ ID NO:3):

```
  1 accagtcacg gaccctggac ccagcgcacc cgcaccatgg ccggccccag cctcgcttgc
 61 tgtctgctcg gcctcctggc gctgacctcc gcctgctaca tccagaactg ccccctggga
121 ggcaagaggg ccgcgccgga cctcgacgtg cgcaagtgcc tccctgcgg ccccgggggc
181 aaaggccgct gcttcgggcc caatatctgc tgcgcggaag agctgggctg cttcgtgggc
241 accgccgaag cgctgcgctg ccaggaggag aactacctgc cgtcgccctg ccagtccggc
301 cagaaggcgt gcgggagcgg gggccgctgc gcggtcttgg gcctctgctg cagcccggac
361 ggctgccacg ccgaccctgc ctgcgacgcg gaagccacct tctcccagcg ctgaaacttg
421 atggctccga acaccctcga agcgcgccac tcgcttcccc catagccacc ccagaaatgg
481 tgaaaataaa ataaagcagg tttttctcct ct
```

Encoded polypeptide (SEQ ID NO:4):

MAGPSLACCLLGLLALTSA**CYIQNCPLG**GKRAAPDLDVRKCLPCGPGGKGRCFGPNICCAEELGCFVGTAEALR
CQEENYLPSPCQSGQKACGSGGRCAVLGLCCSPDGCHADPACDAEATFSQR

human OT-encoding region (SEQ ID NO:5):

tgctaca tccagaactg ccccctggga

human OT peptide sequence (SEQ ID NO:6):

CYIQNCPLG

FIG. 11

Human oxytocin receptor DNA and polypeptide sequences (Genbank accession NM_000916)

DNA sequence (SEQ ID NO:7):

```
   1 tgttaaggct ctgggaccaa cgctgggcga accagctccg ctccggaggg gtctgcgcgg
  61 ctggcctcgc ccgcccccta gcggacccgt gcgatagtgc agcctcagcc ccaggcacag
 121 cgccgcatcc agacgccgtc cgcgcgcgca gcctgggagg cgctcctcgc tcgcctcctg
 181 tacccatcca gcgaccagcc aggctgcggc gaggggattc caaccgaggc tccagtgaga
 241 gacctcagct tagcatcaca ttaggtgcag ccggcaggcc atcccaactc gggccgggag
 301 cgcacgcgtc actggggccg tcagtcgccg tgcaacttcc ccgggggggag tcaactttag
 361 gttcgcctgc ggactcggtg cagtggaagc cgctgaacat cccgaggaac tggcacgctg
 421 ggggctctgg gcttgtggcc ggtagaggat tcccgctcat ttgcagtggc tcagaggagg
 481 gtggacccag cagatccgtc cgtggagtct ccaggagtgg agccccgggc gcccctacac
 541 cctccgacac gccggatccg gcccagccgc gccaagccgt aaagggctcg aaggccgggg
 601 cgcaccgctg ccgccagggt catggagggc gcgctcgcag ccaactggag cgccgaggca
 661 gccaacgcca gcgccgcgcc gccgggggcc gagggcaacc gcaccgccgg acccccgcgg
 721 cgcaacgagg ccctggcgcg cgtggaggtg gcggtgctgt gtctcatcct gctcctggcg
 781 ctgagcggga acgcgtgtgt gctgctggcg ctgcgcacca cacgccagaa gcactcgcgc
 841 ctcttcttct tcatgaagca cctaagcatc gccgacctgg tggtggcagt gtttcaggtg
 901 ctgccgcagt tgctgtggga catcaccttc cgcttctacg ggcccgacct gctgtgccgc
 961 ctggtcaagt acttgcaggt ggtgggcatg ttcgcctcca cctacctgct gctgctcatg
1021 tccctggacc gctgcctggc catctgccag ccgctgcgct cgctgcgccg ccgcaccgac
1081 cgcctggcag tgctcgccac gtggctcggc tgcctggtgg ccagcgcgcc gcaggtgcac
1141 atcttctctc tgcgcgaggt ggctgacggc gtcttcgact gctgggccgt cttcatccag
1201 ccctggggac ccaaggccta catcacatgg atcacgctag ctgtctacat cgtgccggtc
1261 atcgtgctcg ctacctgcta cggccttatc agcttcaaga tctggcagaa cttgcggctc
1321 aagaccgctg cagcggcggc ggccgaggcg ccagagggcg cggcggctgg cgatgggggg
1381 cgcgtggccc tggcgcgtgt cagcagcgtc aagctcatct ccaaggccaa gatccgcacg
1441 gtcaagatga ctttcatcat cgtgctggcc ttcatcgtgt gctggacgcc tttcttcttc
1501 gtgcagatgt ggagcgtctg ggatgccaac gcgcccaagg aagcctcggc cttcatcatc
1561 gtcatgctcc tggccagcct caacagctgc tgcaaccccct ggatctacat gctgttcacg
1621 ggccacctct tccacgaact cgtgcagcgc ttcctgtgct gctccgccag ctacctgaag
1681 ggcagacgcc tgggagagac gagtgccagc aaaaagagca actcgtcctc ctttgtcctg
1741 agccatcgca gctccagcca gaggagctgc tcccagccat ccacggcgtg acccaccagc
1801 cagggccagg gctgcagcct gaggctcagg ctgtgctggc ataagtgctc tgctcctagg
1861 tgatggcgta tgtttgtgta taaggtacct atcagtttgt atccctcccc tccttggggt
1921 ggcttcagtg gggtggagag tggcctccat gatggaagat gataggggac tcagccatca
1981 gacaacaccc tggcctccta cacgtacttc taccaccctg aacccactgc tgccctgggc
2041 agtgagtggc ttgtttttc tcctggactt gtaatttcac tccagtatat ttttacttct
2101 tcattctggg atattgtgaa aagcggtaaa tataggattg gtgaccaatt gggtcaggaa
2161 gtccagtgtt ctggacttgg ggtaagcagt ggggttggga cctcagatgg gaagggtggt
2221 gctaagatcc tcctgacctc aaagtgtatt tgcctttaag cgaacaaatg ctggggtcct
2281 tggggaccag cttgtcagag ggtagcccta agagaagggg attaccttgt aagaccatct
2341 ggcgcagtgg acctattaga acttgggtta aaaatgttta agaagctaat gtttaagaag
2401 catttgggaa agaaaaagaa ataaatgtat ccagatagga aaagaagaag taaaactatt
2461 tgcagatgac acagttttgt atatagaaaa tcctaaggaa ctcacacaca cacacacaca
2521 cacacacgca cacagctatt agaactaata agcaagttcc gcaaggtttc aagatacaag
2581 atcaatatac aaaaatgaat tgtatttctt tatactagca acaaacaata tgaaaacgaa
2641 gttaaataat tccatttata ataccatcag aaagaataaa ataggaatca acttaacaaa
2701 acaagtgcaa gactgaaaac tacaaaattg gaaagaaatt aaagaaggct taaataaatg
2761 gaaagacatc ctgtgttcat ggatcagact tagtattgtt aagatggcaa tactatccta
2821 actgacatgc agattcagtg caatccttat gaaaatcata gctggctttt ttacagaaat
2881 tgataagcta gtcccaaaat tcataaagaa atgcaaggga cccagatatc caaataagcc
2941 ttgaaaaaga acaaagttgg tggattcaca cttcctgatt tcataattta cgataaaggt
3001 aatcagctca gtgtgttact ggtttaagga tagacatacg gagcagaata aagagtacag
```

FIG. 12

```
3061 atatgaacac ttatacttac ggtcaattga tttttgacaa ggttcccaag acaattcaat
3121 agagaaagga gagtcttttc aacaaatggc accgagacaa tgatatgcaa gtgcaaaaga
3181 atgaggttgg acctttactc acactatgtg caaaaatcaa ctcaaaacgc atccaagatc
3241 taaatataag agctgaaact ataaaatctt agaaagaaac ataggcatag atctttgtaa
3301 ccttgaatta ggcagtggtt tcttagatat gataccaaag acacaagcaa ccaatggaaa
3361 aataggtaaa ttggacttaa tcaagatttg aagcttttgt gattgaaaag accctatcaa
3421 gaaggtgaaa agataacctg cagaatggga gaaaatattt gcgagtcata tatatgataa
3481 ggggcttgta tctggaatat ataaataact cttataacac aacaataagg agaaaaataa
3541 atcaatttaa aaaatgggct aacggtttga atagacattt ctccaaagaa gatatgcaaa
3601 tggctactaa gcacatgaaa aatactcaac attattattc attagggaaa tgcaagtcaa
3661 aatcacaatg agattccagt ttacaatcac taggatggct acaataaaaa gatggacaag
3721 aacgagtgtc ggtgaggatg tagagaaact ggtagaaatt taaattgttg gtgggaatgt
3781 aaatggtgca cctgctttga aaaacagttt ggcagtacct caaaaagtta aacgtagagt
3841 gaccatatga cccaggaatg ccactcctag gtatttaccc aagagaaatg aaaacgtaca
3901 tacacacaaa aacttgtaca ccaatgttca tagcaacatt atttgtaata gccaaaaagt
3961 ggaaacaacc caaatgtcta ccaactgatg aatgggaaat aaaatgtggt ctgtccacgc
4021 aatggaacat tattagactc taaaaagaaa tgaagtactc acacatgcca caacatggat
4081 gagccttgaa aacttgctaa gtgaaagaag ccaggtgcaa aagcccacat attgtctgac
4141 tgcattgaaa tgcaatgtct aaaatggacg aatctatata gagtgaatat agattagcgt
4201 ttgccagggc ctggaggctg tgagagatga ggcatgacta ctaagggttt ggggtttctt
4261 tttcgggtga tgaaaatgtt cgaaattagt ggtgattgtg cacgattttg agaatgtact
4321 aaaaaccaat gaactttaaa aaataaaaat aaacaaa
```

Polypeptide sequence (SEQ ID NO:8):

```
MEGALAANWSAEAANASAAPPGAEGNRTAGPPRRNEALARVEVAVLCLILLLALSGNACVLLALRTTRQKHSRLFFF
MKHLSIADLVVAVFQVLPQLLWDITFRFYGPDLLCRLVKYLQVVGMFASTYLLLLMSLDRCLAICQPLRSLRRRTDR
LAVLATWLGCLVASAPQVHIFSLREVADGVFDCWAVFIQPWGPKAYITWITLAVYIVPVIVLATCYGLISFKIWQNL
RLKTAAAAAAEAPEGAAAGDGGRVALARVSSVKLISKAKIRTVKMTFIIVLAFIVCWTPFFFVQMWSVWDANAPKEA
SAFIIVMLLASLNSCCNPWIYMLFTGHLFHELVQRFLCCSASYLKGRRLGETSASKKSNSSSFVLSHRSSSQRSCSQ
PSTA
```

FIG. 12
(CONTINUED)